

UNITED STATES N.M. Oil Cons. DIV-Dist. 2
DEPARTMENT OF THE INTERIOR 1300 W. Grand Avenue
BUREAU OF LAND MANAGEMENT Artesia, NM 88210

Form approved
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a TYPE OF WORK: ☒ DRILL ☐ REENTER

b. TYPE OF WELL: ☒ OIL WELL ☐ GAS WELL ☐ Other ☐ SINGLE ZONE ☐ MULTIPLE ZONE

2. NAME OF OPERATOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

3a. ADDRESS AND TELEPHONE NO.

20 NORTH BROADWAY, SUITE 1500, OKC, OK 73102

3b. TELEPHONE (Include area code).

(405) 228-7512

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1520' FSL & 1065' FWL, Unit L, Sec 8

At top proposed prod. zone 660' FSL & 660' FEL, Unit P, Sec 7

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approx 30 miles Northwest of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

660'

(Also to nearest drile unit line if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4137' GR

16. NO. OF ACRES IN LEASE

618.00

19. PROPOSED DEPTH

8600'

22. APPROX. DATE WORK WILL START*

10/15/03

5. LEASE DESIGNATION AND SERIAL NO.

NMNM81616 81219

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Old Ranch Canyon 7 Federal #8

9. API WELL NO.

30-015-33064

10. FIELD AND POOL, OR WILDCAT

Indian Basin Upper Penn (Assoc)

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec 8 T22S R24E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

17. Spacing Unit dedicated to this well

320

20. BLM/BIA Bond No. on file

CO1104

23. Estimated duration

45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

CARLSBAD CONTROLLED WATER BASIN

Drilling Program

Surface Use and Operating Plan

Exhibit #1 = Blowout Prevention Equipment

Exhibit #2 = Location and Elevation Plat

Exhibit #3 = Road Map and Topo Map

Exhibit #4 = Wells Within 1 Mile Radius

Exhibit #5 = Production Facilities Plat

Exhibit #6 = Rotary Rig Layout

Exhibit #7 = Casing Design

H₂S Operating Plan

Archeological clearance report

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portions thereof, as described above

Bond Coverage: Nationwide
BLM Bond #: CO-1104

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

25. Signature

Name (Printed/Typed)

KAREN COTTOM

Date

September 16, 2003

Title

OPERATIONS TECHNICIAN

Approved by (signature)

/s/ Joe G. Lara

Name (Printed/Typed)

/s/ Joe G. Lara

Date

20 OCT 2003

Title

Office

ACTING FIELD MANAGER

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

DRILLING PROGRAM

Devon Energy Production Company, LP

Old Ranch Canyon 7 Federal #8

Surface Location: 1520' FSL & 1065' FWL, Unit L, Sec 8 T22S R24E, Eddy, NM

Bottom hole Location: 660' FSL & 660' FEL, Unit P, sec 7 T22S R24E, Eddy, NM

1. Geologic Name of Surface Formation

- a. Quaternary Aeolian Deposits

2. Estimated tops of geological markers:

- | | |
|------------------------------------|-------|
| a. San Andres | 500' |
| b. Glorieta | 2375' |
| c. Bone Spring | 3032' |
| d. 2 nd Bone Spring Sd. | 4921' |
| e. Wolfcamp Carbonate | 7047' |
| f. Cisco-Canyon | 7368' |

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

- | | |
|-----------------------|-------|
| a. San Andres | Water |
| b. Bone Spring | Oil |
| c. Wolfcamp Carbonate | Oil |
| d. Cisco-Canyon | Oil |

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
26"	0' - 40'	20"	Na	Na	Conductor
12 1/4"	0' - 1,600'	9 5/8"	36#	ST&C	H-40
8 3/4"	0' - 8,600'	7"	23	LT&C	HCL-80 & L80

5. Cement & Setting Depth:

- a. 20" Conductor
- b. 9 5/8" Surface

Set 40' of 20" conductor and cement to surface with Redi-mix
Set 1600' of 9 5/8", 36#, H-40 ST&C casing. Cement with 400 sx
of Class C 35:65 Poz + 2% CaCl + 1/4# Celoflakes/sx + 3#/sx of
Kolseal, + 6% Bentonite, tail in with 200 sx of Class C cement +
2% Cacl, + 1/4# Celoflakes/sx. Circulate cement to surface.

- c. 7" Production

Set 8,600' of 7" casing as follows 1200' of 7", 23#, HLC-80
LT&C, 7400' of 7" 23# L8 LT&C casing. Cement with 315 sx of
Class C 15:61:11 Poz Cement + 5#/sx of LCM-1, + 2% CaCl, +
1% EC-1, + .6% FL-25 + .6% FL-52 + .3% CD-32 + .3% Sodium
Metasilicate + 1/4# Celoflakes/sx Estimated top of cement 6400'
from surface.

WITNESS

6. Pressure Control Equipment:

- a. Exhibit "E" shows a 900 series 3000 PSI working pressure BOP consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The BOP will be nipped up on the 9 5/8" casing and tested to API specifications. The BOP will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of hole on trips. Full opening stabbing valve and upper Kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 psi choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected in this well.

7. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
40' – 1600'	8.5-8.6	29-34	NC	Fresh Water
1600' – 7300'	8.5-8.7	29-38	NC	Fresh Water
7300' – 8600'	8.5-8.7	32-40	10 cc or less	Fresh Water

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, & casing the viscosity and/or water loss may have to be adjusted to meet these needs.

8. Logging, Coring, and Testing Program:

- a. Open hole logs: Dual Induction, SNP, LDT, MSFL, Gamma Ray, Caliper from TD to 1600'. Run Gamma Ray, neutron from 1600' to surface.
- b. Mud Logger may be rigged up on hole at the request of the operator
- c. No cores or DST's are planned at this time.
- d. After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4250 psi and Estimated BHT 180°.

10. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
 - a. Characteristics of H2S
 - b. Physical effects and hazards
 - c. Proper use of safety equipment and life support systems.
 - d. Principle and operation of H2S detectors, warning system and briefing areas
 - e. Evacuation procedures, routes and first aid.
 - f. Proper use of 30 minute pressure demand air pack.
2. H2S Detection and Alarm System
 - a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
 - a. Windsock at mud pit area should be high enough to be visible
 - b. Windsock at briefing area should be high enough to be visible
 - c. There should be a windsock at entrance to location
4. Condition Flags and Signs
 - a. Warning Sign on access road to location
 - b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well Control Equipment
 - a. See Exhibit "E" & "E-1"
6. Communication
 - a. While working under masks chalkboards will be used for communication.
 - b. Hand signals will be used where chalk board is inappropriate
 - c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - a. Exhausts will be watered
 - b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
 - c. If the location is near to a dwelling a closed DST will be performed.
8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
9. If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

SURFACE USE PLAN

Devon Energy Production Company, LP
Old Ranch Canyon 7 Federal #8

Surface Location: 1520' FSL & 1065' FWL, Unit L, Sec 8 T22S R24E, Eddy, NM

Bottom hole Location: 660' FSL & 660' FEL, Unit P, sec 7 T22S R24E, Eddy, NM

1. Existing Roads:

- a. The well site and elevation plat for the proposed are reflected on Exhibit 2. Basin Surveys staked the well.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: On State Hwy 137, go past mile marker 42 for 0.1 mile to a lease road; thence south on lease road for 1.6 mile to the Old Ranch Knoll 8 Fed Com #8 and proposed well pad.

2. Access Road

- a. Exhibit #3 shows the existing lease road. Access to this location will not require any construction.
- b. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. If on completion this well is a producer the operator will lay pipelines and construct power lines along existing road ROW's or other existing ROW's . Possible routes of pipelines, flow lines and power lines are shown on Exhibit

4. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed of in the reserve pits.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. Wastewater from living quarters will be drained into hole with a minimum of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.

5. Well Site Layout

- a. Exhibit D shows the proposed well site layout.
- b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits & the reserve pits is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

- e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

6. Other Information:

- a. Topography consists of deep canyons and high hills consisting of limestone soil in the bottom of the canyon is sandy, which supports lechuguilla, acacis, little leaf sumac, yucca, sotol, prickly pear, cholla, creosote, and algerita.
- b. The surface and minerals are owned by the US Government and is administered by the Bureau of Land Management. The surface is of limited use except for the grazing of livestock and the production of oil and gas.
- c. An archaeological survey will be conducted of the well pad location and the results will be filed with the Bureau of Land Management in Carlsbad Field office.
- d. There are no dwellings within 2 miles of location.

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Robert Elliott
Operations Engineer Advisor

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

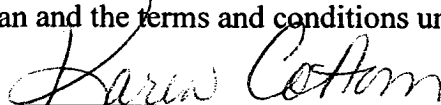
(405) 228-8609 (office)
(405) 323-4616 (Cellular)

(505) 748-3371 (office)
(505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: _____


Karen Cottom
Operations Technician

Date: September 16, 2003

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Old Ranch Canyon 7 Federal #8

Surface Location: 1520' FSL & 1065' FWL, Unit L, Sec 8 T22S R24E, Eddy, NM
Bottom hole Location: 660' FSL & 660' FEL, Unit P, sec 7 T22S R24E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

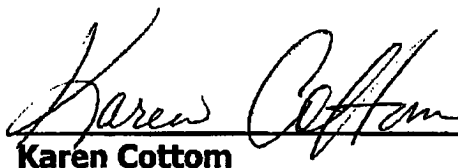
Statement Accepting Responsibility for Operations

Operator Name: **Devon Energy Production Company, LP**
Street or Box: **20 North Broadway, Suite 1500**
City, State: **Oklahoma City, Oklahoma**
Zip Code: **73102-8260**

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.: **NMNM81616**
Legal Description of Land: **618 acres 8 T22S R24E**
Formation(s): **Morrow**
Bond Coverage: **Nationwide**
BLM Bond File No.: **CO-1104**

Authorized Signature:


Karen Cottom

Title: **Operations Technician**

Date: **10/20/03**

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	33685	INDIAN BASIN: UPPER PENN (ASSOC)
Property Code	Property Name	Well Number
	OLD RANCH CANYON "7" FEDERAL	8
OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION CO., L.P.	4137'

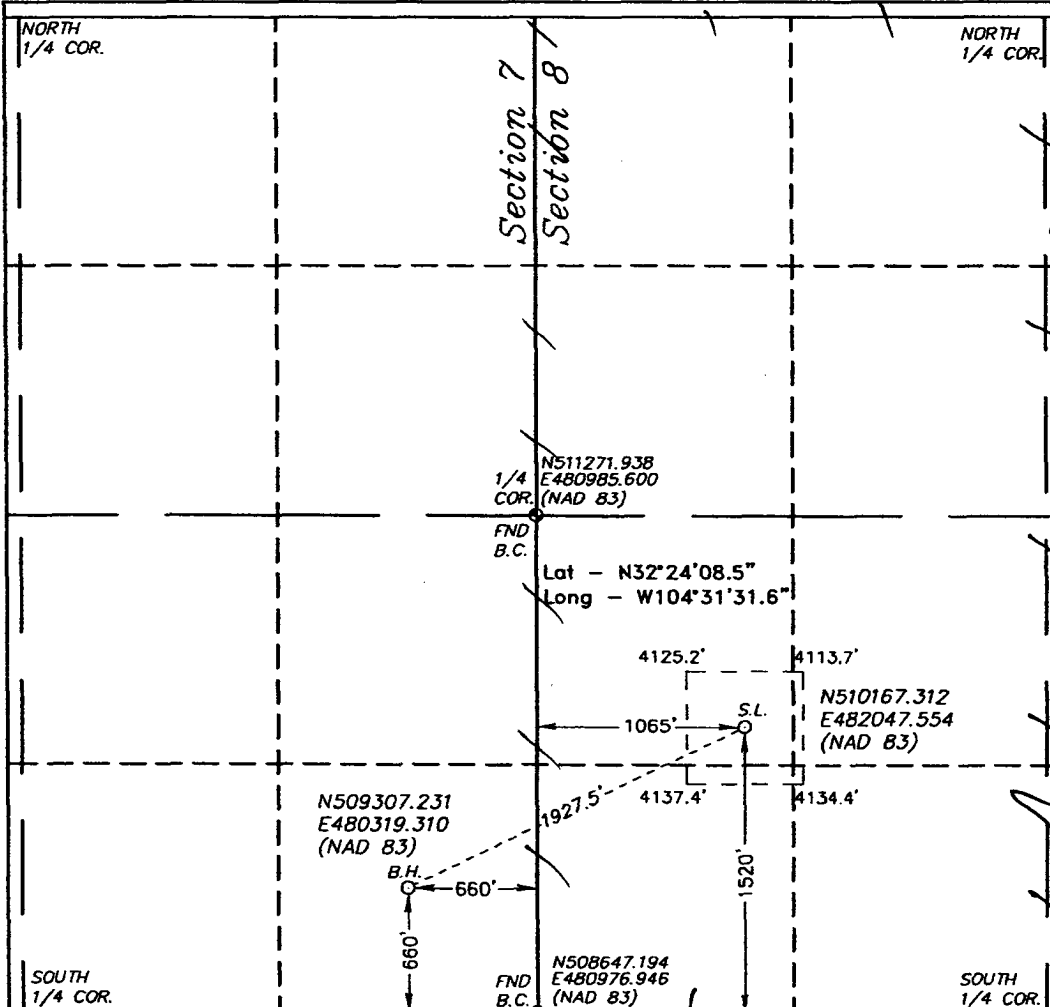
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	8	22 S	24 E		1520	SOUTH	1065	WEST	EDDY

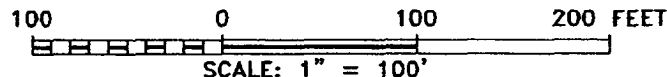
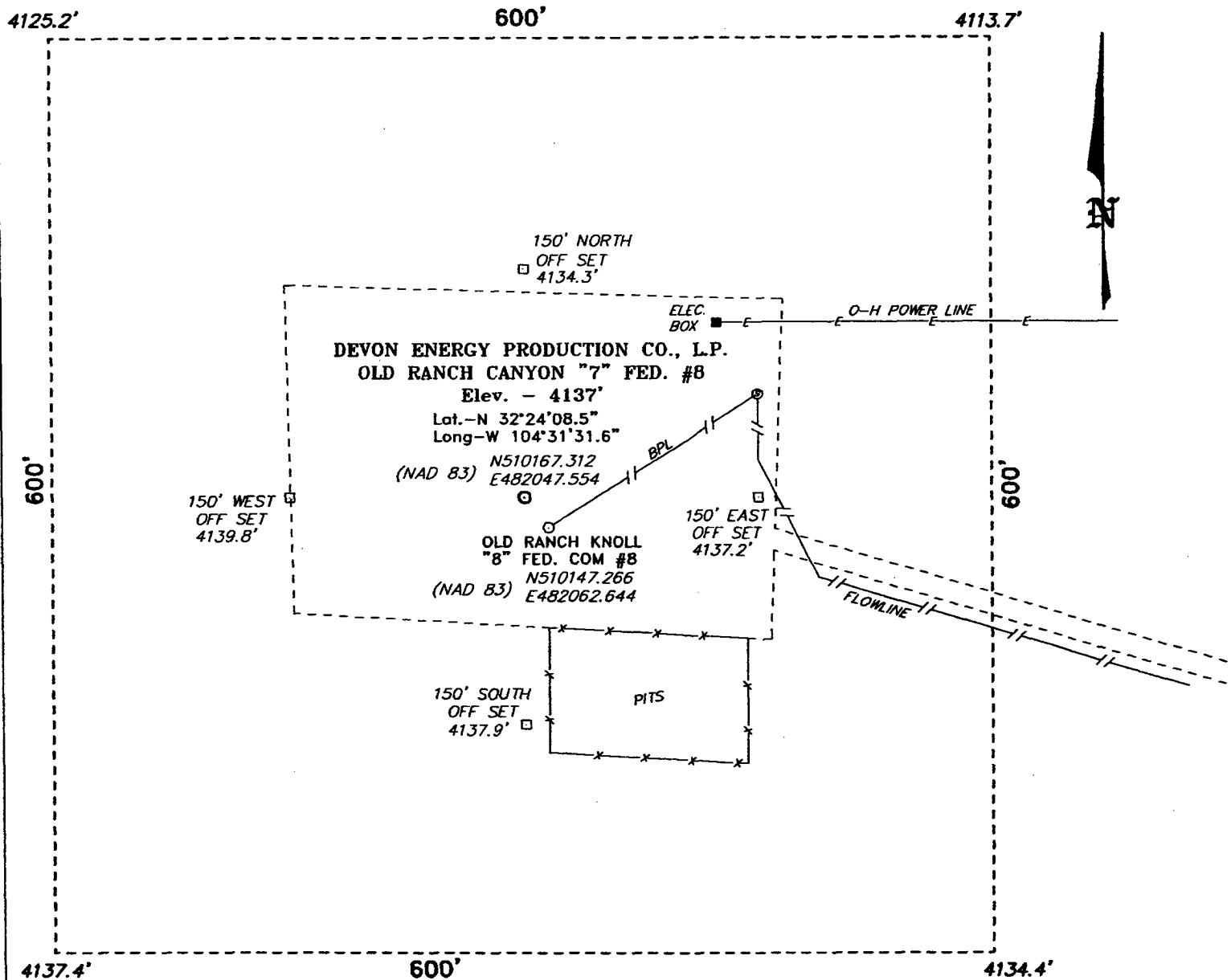
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	7	22 S	24 E		660	SOUTH	660	EAST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Karen Cottom</i> Signature Karen Cottom Printed Name Operations Technician Title September 8, 2003 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. SEPTEMBER 02, 2003 Date Surveyed <i>[Signature]</i> Signature Professional Surveyor NEW MEXICO W.O. No. 3585 Certificate No. Gary L. Jones 7977 BASIN SURVEYS

SECTION 8, TOWNSHIP 22 SOUTH, RANGE 24 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

ON STATE HWY 137, GO PAST MILE MARKER 42 FOR
0.1 MILE TO A LEASE ROAD; THENCE SOUTH ON
LEASE ROAD FOR 1.6 MILE TO THE OLD RANCH
KNOLL "8" FED. COM #8 AND PROPOSED WELL PAD.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 3585

Drawn By: K. GOAD

Date: 09-03-2003

Disk: KJG CD#4 - 3585A.DWG

DEVON ENERGY PROD. CO., L.P.

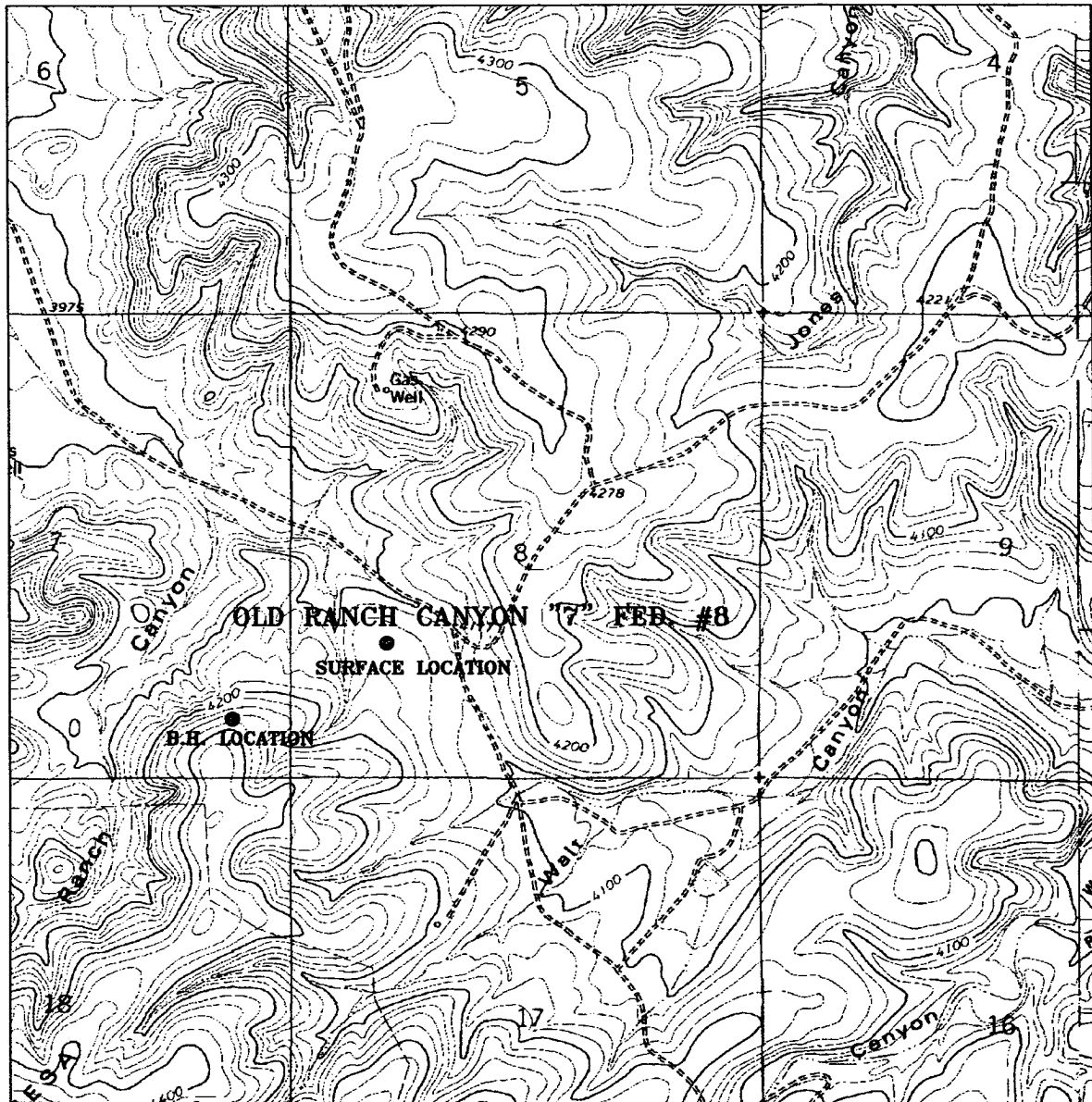
REF: OLD RANCH CANYON "7" FEDERAL No. 8 / Well Pad Topo

THE OLD RANCH CANYON "7" FED. No. 8 LOCATED 1520'
FROM THE SOUTH LINE AND 1065' FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 22 SOUTH, RANGE 24 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 09-02-2003

Sheet 1 of 1 Sheets



OLD RANCH CANYON "7" FEDERAL #8

SURFACE LOCATION at 1520' FSL AND 1065' FWL
 Section 8, Township 22 South, Range 24 East,
 BOTTOM HOLE at 660' FSL AND 660' FEL
 Section 7, Township 22 South, Range 24 East,
 N.M.P.M., Eddy County, New Mexico.

**basin
surveys**
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

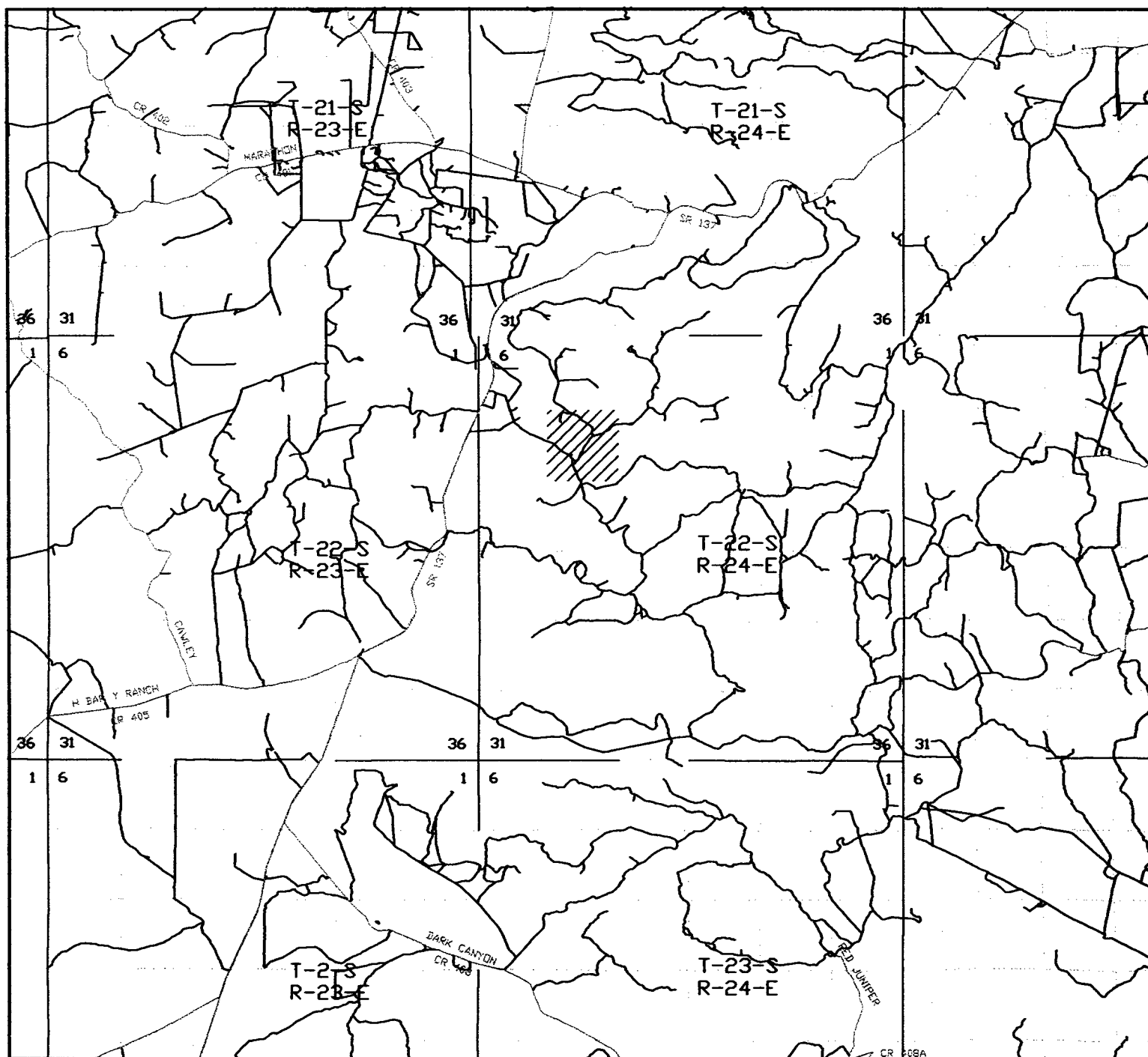
W.O. Number: 3585AA - KJG CD#4

Survey Date: 09-02-2003

Scale: 1" = 2000'

Date: 09-03-2003

**DEVON ENERGY
 PROD. CO., L.P.**



OLD RANCH CANYON "7" FEDERAL #8
SURFACE LOCATION at 1520' FSL AND 1065' FWL
Section 8, Township 22 South, Range 24 East,
BOTTOM HOLE at 660' FSL AND 660' FEL
Section 7, Township 22 South, Range 24 East,
N.M.P.M., Eddy County, New Mexico.

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P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

W.O. Number: 3585AA - KJG CD#4

Survey Date: 09-02-2003

Scale: 1" = 2 miles

Date: 09-03-2003

DEVON ENERGY
PROD. CO., L.P.

Well name:	Old Ranch Canyon 7 Federal	#8
Operator:	Devon Energy Production Company, LP	
String type:	Surface	
Location:	Section 7, T22S, R24E	

Design parameters:
Collapse

Mud weight: 8.500 ppg
Design is based on evacuated pipe.

Minimum design factors:
Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 88 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Burst

Max anticipated surface pressure: 914 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 914 psi

Annular backup: 8.50 ppg

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 1,399 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,600 ft
Next mud weight: 8.500 ppg
Next setting BHP: 3,797 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 1,600 ft
Injection pressure 914 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	1600	9.625	36.00	H-40	ST&C	1600	1600	8.765	14372

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	706	1720	2.43	914	2560	2.80	57.6	294	5.10 J

Prepared W.M. Frank
by: Devon Energy

Phone: (405) 552-4595
FAX: (405) 552-4621

Date: September 30, 2002
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 1600 ft, a mud weight of 8.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

Old Ranch Canyon 7 Federal #8

Operator: Devon Energy Production Company, LP

String type: Production

Location: Section 7, T22S, R24E

Design parameters:**Collapse**Mud weight: 8.500 ppg
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 144 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft**Burst**Max anticipated surface
pressure: 3,797 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,797 psi

Annular backup: 8.50 ppg**Tension:**8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Non-directional string.

Tension is based on air weight.

Neutral point: 7,501 ft

Estimated cost: 78,024.(\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	7400	7	23.00	L-80	LT&C	7400	7400	6.25	66374
1	1200	7	23.00	HCL-80	LT&C	8600	8600	6.25	11650

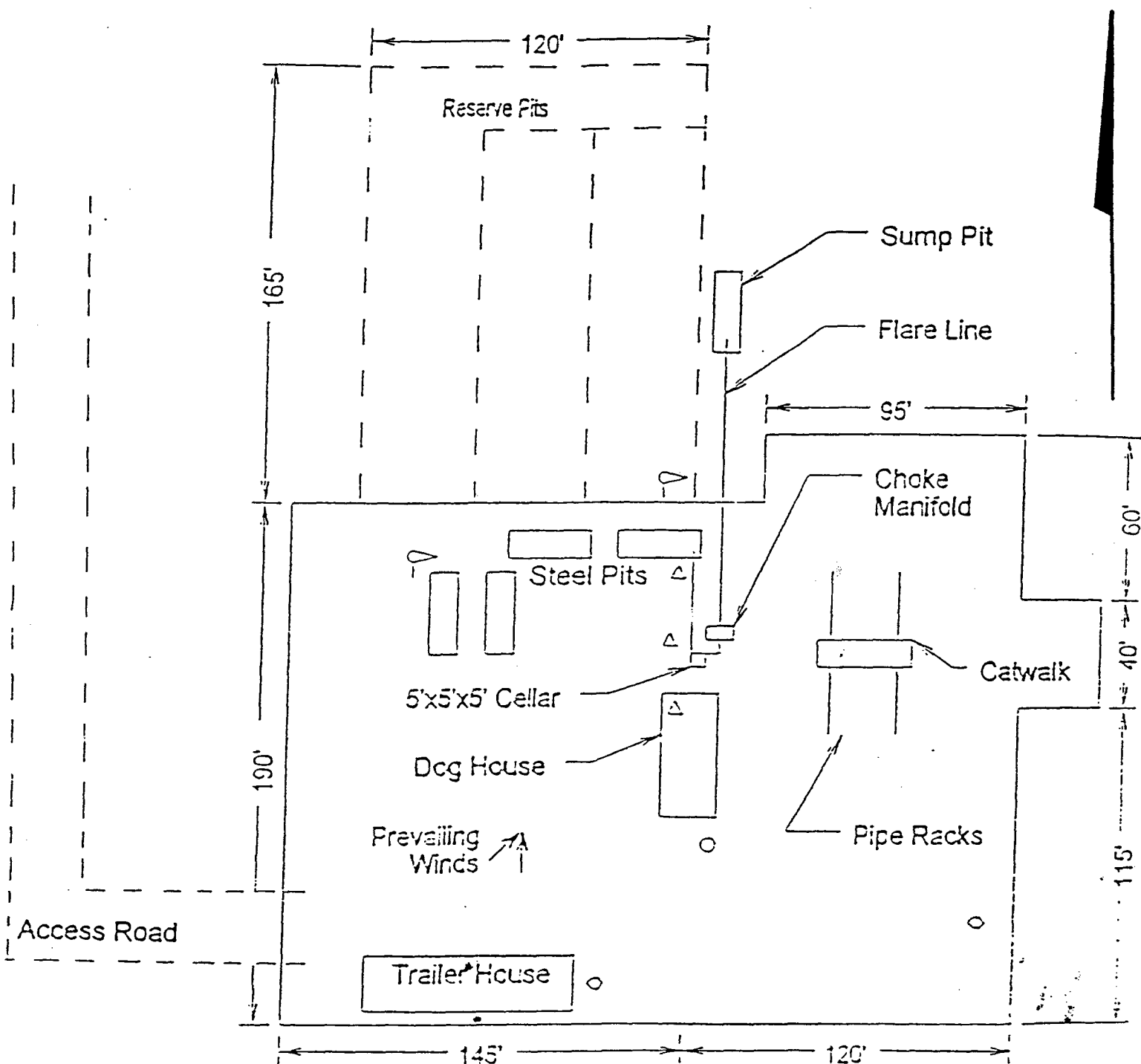
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3268	3774	1.15	3797	6340	1.67	197.8	435	2.20 J
1	3797	5650	1.49	530	6340	11.97	27.6	485	17.57 J

Prepared W.M. Frank
by: Devon EnergyPhone: (405) 552-4595
FAX: (405) 552-4621Date: September 30, 2002
Oklahoma City, Oklahoma**Remarks:**

Collapse is based on a vertical depth of 8600 ft, a mud weight of 8.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.



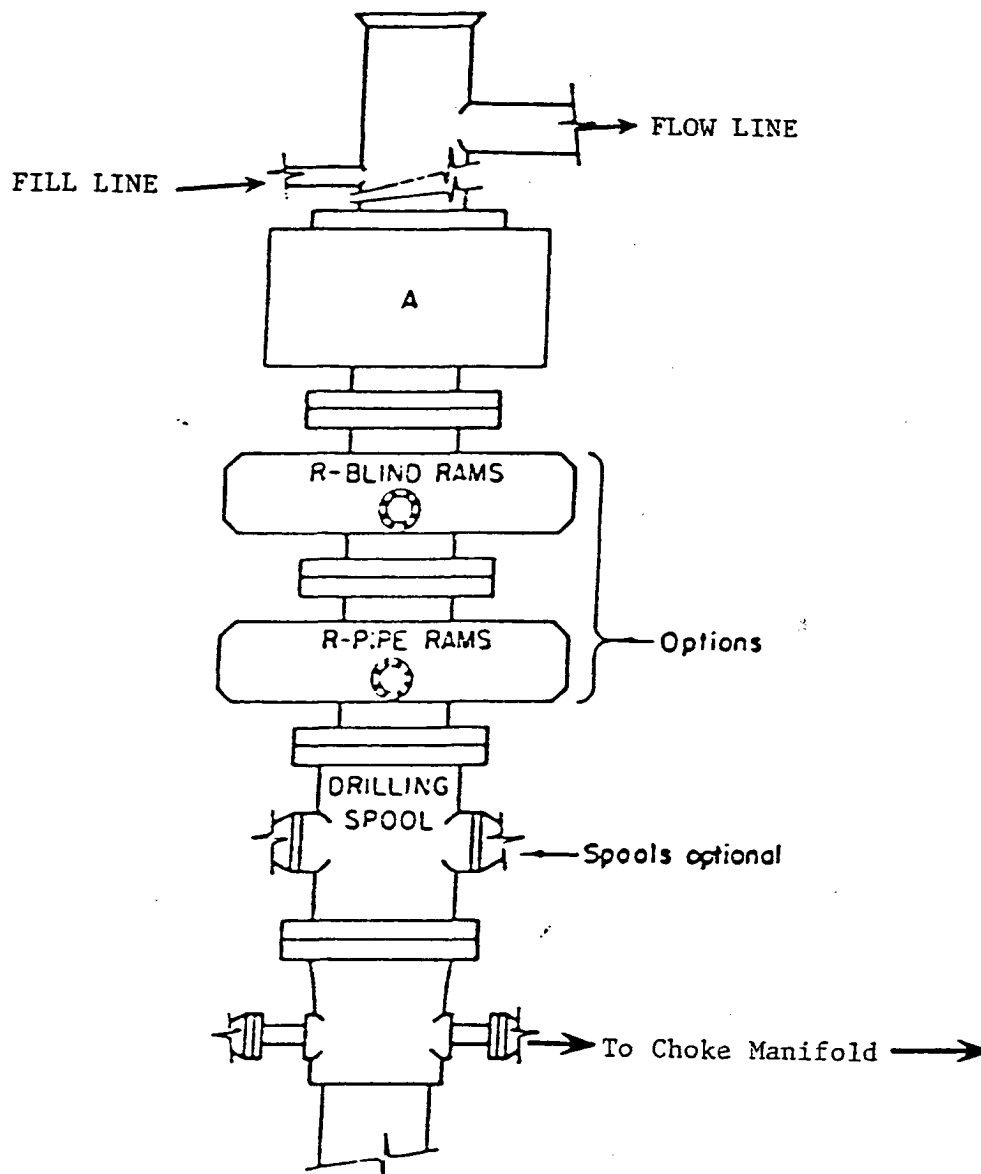
- Wind Direction Indicators
(wind sock or streamers)
- △ H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote SOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

Devon Energy Production Co. I

T22S-R24E

EDDY CO. NM



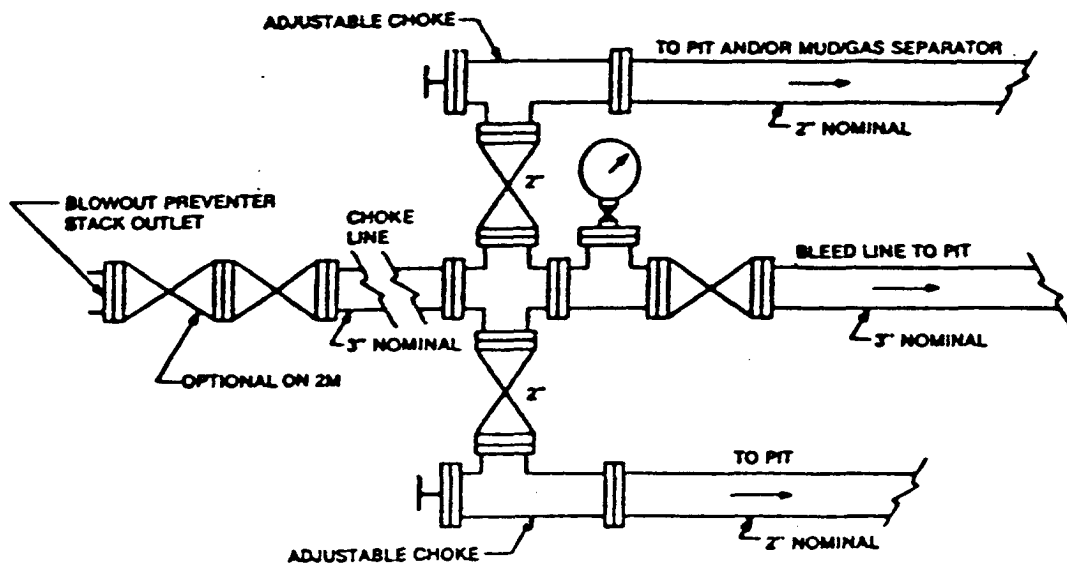
ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON
Devon Energy Production Company

T22S-R24E

EDDY CO. NM



Typical choke manifold assembly for 3M WP system

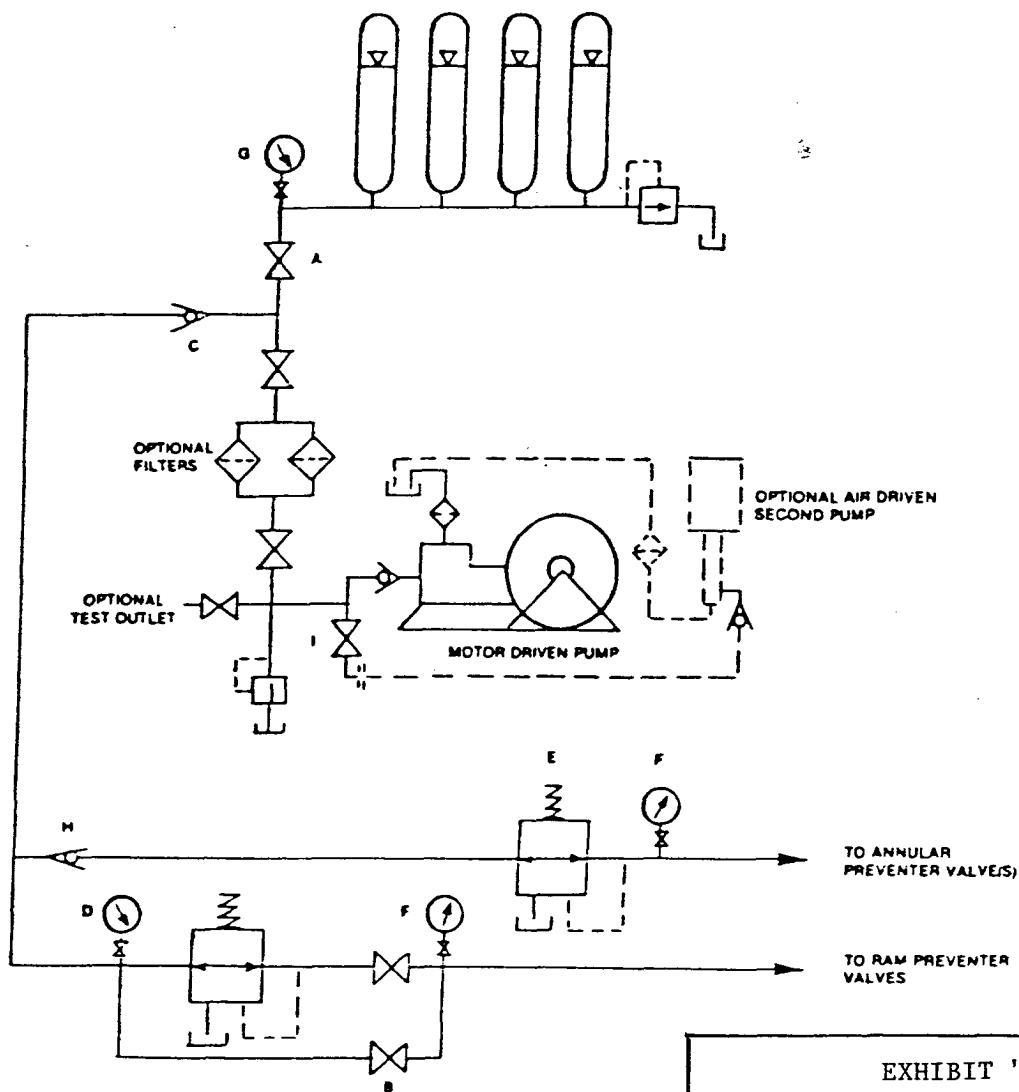


EXHIBIT "E-1"
 CHOKE MANIFOLD & CLOSING UNIT
 Devon Energy Production Company LP
 R22S-R24E EDDY CO. NO.